



**THE CENTRE FOR  
ENTREPRENEURSHIP DEVELOPMENT**  
(A Govt. of Gujarat Organization)

Funded Anchor Institute

**Dhirubhai Ambani Institute of  
Information and Communication Technology**



ENGINEERS WITH  
SOCIAL RESPONSIBILITY

Start Date:15/04/2024

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*Online certificate course on  
“Advance Data Science and  
Analytics: A comprehensive  
Hands-on”*

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(UNDER THE ANCHOR INSTITUTE PROGRAM)

Anchor Institute Programme Office

DHIRUBHAI AMBANI INSTITUTE OF INFORMATION AND  
COMMUNICATION TECHNOLOGY, GANDHINAGAR,GUJARAT

- ❖ **Funded by:** The Centre for Entrepreneurship Development ([CED](#))-A Government of Gujarat Organisation.
- ❖ **Organized by:** Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar, Gujarat, India ([DA-IICT](#)).

<b>Tentative Start Date</b>	15 <sup>th</sup> April 2024
<b>Mode</b>	Online
<b>Course Schedule</b>	Detailed schedule information will be shared at a later date.
<b>Course Duration</b>	The duration of the course will be 40 hours, consisting of 30 hours of theory sessions and 10 hours of laboratory sessions.
<b>Target Audience</b>	<b>Faculties, Professionals, PG &amp; Final year UG Students</b>
<b>Course Fee (Pay Online)</b>	Participants are charged a fully refundable upfront course fee of 5,000 INR.
<b>Refund Policy</b>	Maintain a 75% minimum attendance to be eligible for the refund.
<b>Certificate</b>	A participation certificate will be conferred to individuals who maintain an attendance record of at least 75%.

- ❖ **Pay online to the below bank account:**

<b>Name of Account Holder</b>	M/S.DHIRUBHAI AMBANI INST OF INFOR & COMM TECHNOLOGY ANCHOR IN
<b>Bank Name</b>	ICICI Bank Ltd.
<b>Account Number</b>	016501021384
<b>IFSC Code</b>	ICIC0000165

- ❖ **Registration on the following link after the payment:**

To enrol, please complete the registration form by [clicking here](#). Once you open the registration form, you will find further instructions and details. However, we have attached the poster and course outlines for your reference.

The last day of registration is **08th April. 2024**

- ❖ For more details, please visit <https://www.daiict.ac.in/courses-through-aip-cep>

### 1. Course Objective

The objective of this course is to equip participants with essential skills in Python programming for data analysis, covering topics such as data manipulation with NumPy and Pandas, statistical analysis and feature engineering, data visualization using Matplotlib and Seaborn, introduction to machine learning algorithms including regression and support vector machines, model evaluation techniques, and data storytelling with Tableau. Through a series of quizzes and hands-on projects, participants will develop proficiency in Python, machine learning concepts, and Tableau for creating interactive dashboards and reports.

## 2. Expected Outcome

The expected outcome of this course is for participants to gain a comprehensive understanding of Python for data analysis, machine learning techniques, and data visualization using Tableau. By the end of the course, participants should be able to effectively manipulate and analyze data, apply machine learning algorithms for predictive modeling, create informative visualizations, and build interactive dashboards and reports to communicate insights derived from data effectively. Additionally, participants should develop critical thinking skills in feature engineering, model evaluation, and hyper parameter tuning for optimizing machine learning models.

## 3. Course Outline

Sr. No	Topics	# of weeks	# of Hours
1	Python Basics and Data Science Fundamentals	1	6
2	EDA- Exploratory Data Analysis	1	6
3	ML Models and Implementation	2	12
4	Visualization Tool (Tableau)	1	6
5	Data Science Project Implementation	1.5	10
<b>Total Hours</b>		<b>40 Hours</b>	

## 4. Mentoring Program

Week	Session	Domain	Topics	Mentor	
				Speaker	Backup
One	1	Domain 1	Python setup and Installation and dependency management	Vaibhav Ahir	Santoh Perla
	2		Basics of Data Structures in Python, Functions and Modules		
	3		NumPy and Pandas File Handling in Python + Quiz 1		
Two	1	Domain 2	Sanitize and pre-process data	Vaibhav Ahir	Santoh Perla
	2		Feature Engineering with Statistical Analysis with Python		
	3		Data Visualization with Matplotlib and Seaborn + Quiz 2		
Three	1	Domain 3	Introduction to Machine Learning	Dr. Rachana Gupta	Babrit Behera
	2		Regression in ML		
	3		Logistic Regression + Quiz 3		
Four	1	Domain 3	Feature Engineering and Selection	Dr. Rachana Gupta	Babrit Behera
	2		Support Vector Machines (SVM)		
	3		Model Evaluation and Hyperparameter Tuning + Quiz 6		
Five	1	Domain 4	Introduction to Tableau for Data Visualization	Dr. Rachana Gupta	
	2		Data Storytelling with Tableau		
	3		Project to prepare a Dashboard.		
Six	1	Domain 5	Project Kick-off and Data Exploration	Paramtap Mewada	Babrit Behera
	2		Feature Engineering		
	3		Model Building and Evaluation		
Seven	1	Domain 5	Report visualization with Tableau tool	Dr. Rachana Gupta	Babrit Behera
	2		Feedback + Quiz 8		

## 5. Course Instructors: (Rishabh Software Pvt Ltd)



Dr. Rachana Gupta, **Data Scientist** - Rishabh Software Pvt Ltd  
Ph.D. NIT Jaipur from ECE department.



Paramtap Mewada, **Lead Data Science** - Rishabh Software Pvt Ltd  
M.SC.- University of Sheffield.



Babrit Behera, **Senior Data Scientist** - Rishabh Software Pvt Ltd  
M.C.A -B.P.U.T, Odisha.



Santosh Kumar Perla, **Machine Learning Engineer** - Rishabh Software Pvt Ltd  
B.Tech- Parul University.



Vaibhav Ahir, **Associate Data Engineer** - Rishabh Software Pvt Ltd  
MCA – Maharaja Saiyajirao University of Baroda

## 6. Address for Correspondence:

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